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## Before the FEDERAL COMMUNICATIONS COMMISSION RECEIVED

FEDERAL COMMUNICATIONS COMMISSION

In the Matter of

Amendment of the Commission's Rules To Permit Flexible Service Offerings in the Commercial Mobile Radio Services

WT Docket No. 96-6

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COMMENTS OF NORTHERN TELECOM INC.

Northern Telecom Inc. ("Nortel") hereby comments on the Commission's Notice of Proposed Rulemaking to allow broadband Commercial Mobile Radio Service ("CMRS") providers to offer fixed wireless local loop services. 1/

Nortel supports the NPRM's suggestion to amend the Commission's Rules to permit fixed local loop services over CMRS Nortel believes that all wireless service providers spectrum. should have maximum flexibility with respect to the services offered over their licensed spectrum. With such authority, CMRS providers will be able to compete with wireline networks and to deploy service in areas where wireline networks may not be economical. Nortel also supports the proposal to allow wireless fixed local loop services because it removes any ambiguity that

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Amendment of the Commission's Rules To Permit Flexible Service Offerings in the Commercial Mobile Radio Services, FCC 96-17, released January 25, 1996 (hereafter "NPRM").

exists at present regarding the extent to which different CMRS service providers are permitted to offer such services. Finally, as detailed herein, Nortel believes that additional allocations of spectrum for fixed wireless access services would well serve the public interest.

Nortel is the leading global supplier, in 90 countries, of digital telecommunication switching systems, supplying systems to businesses, universities, local, state and federal governments, the telecommunications industry, and other institutions worldwide. The company employs more than 22,000 people in the United States in manufacturing plants, research and development centers, and in marketing, sales and service offices across the country.

In February 1991, Nortel established a wireless systems organization that has as its objective the development of new wireless technologies and services to meet marketplace demands throughout the world. In recognition of the growing importance of wireless communications, this group has been made comparable in organizational stature to the company's historical public and private network product line groups. Thus, Nortel has a strong interest in the NPRM and a strong desire to see the wireless marketplace continue to expand rapidly.

Nortel agrees with the Commission that CMRS providers should have the flexibility to provide "fixed" local loop services. 21 Such flexibility will allow wireless service

 $<sup>\</sup>underline{E.g.}$ ,  $\underline{NPRM}$  at ¶'s 13 and 16.

providers the ability to respond rapidly to marketplace demands, and thereby compete more effectively with other CMRS providers and with wireline service providers. Nortel believes that the marketplace is the most efficient determinant of the best use for spectrum. Allowing CMRS providers to offer fixed local loop services will thus heighten competition in the fixed services marketplace, which will benefit consumers by providing additional choices and innovative service offerings. Moreover, granting CMRS providers with the ability to offer wireless local loop services will make it possible to deploy service rapidly in rural areas or in other situations where traditional wireline networks might not be economical.

Under the current regulations, providing such services in the CMRS spectrum is problematic. The Commission's Rules apply somewhat different standards to CMRS providers' offering of fixed local loop services, depending on the particular wireless service. The Commission's Rules are ambiguous and seemingly inconsistent. Fixed services may be offered by different types of CMRS providers on "incidental," "auxiliary," "secondary," and "ancillary" bases.<sup>3</sup>

The NPRM asks whether the Commission should eliminate the ambiguity and inconsistency by making clear that all CMRS providers could offer fixed local loop services. Nortel believes that all CMRS providers should be treated similarly. The marketplace can be severely distorted if the different

In addition, cellular carriers may provide BETRS using the cellular spectrum. 47 C.F.R. § 22.930.

competitors are artificially constrained in the services they offer.

Nortel also believes that the public interest is disserved when the scope of permitted services is unclear. Carriers should not have to speculate as to whether a proposed service falls within the "ancillary" category. Mor should the Commission or the carriers have to expend the resources to obtain rulings on a case-by-case basis as to the propriety of a contemplated offering. Nortel thus urges the Commission clearly to permit fixed local loop services to be offered by CMRS providers.

The Commission's proposal to allow CMRS providers to offer fixed services is a positive step towards facilitating the rapid availability of fixed wireless local loop services. Nortel believes, however, that more needs to be done. Although it is

Indeed, Nortel observed this ambiguity in its December 8, 1993 Petition for Reconsideration of the Commission's PCS rulemaking, where it stated at n. 12:

An additional difference between PCS and cellular may be the ability to provide service to fixed points in rural areas. In the cellular regulations, the Commission allows cellular carriers to offer BETRS; for PCS, the Rules allow PCS operators to provide fixed service on an ancillary basis, although the term "ancillary" is undefined. Northern Telecom assumes that so long as sufficient capacity remains to serve the primary, mobile services customers, then the provision of fixed service will be permissible without separately attempting to measure relative capacity or revenues associated with the primary and ancillary offerings. Northern Telecom requests that the Commission clarify that its interpretation is correct or otherwise modify the Rules so that PCS operators will be allowed to provide fixed services as part of their basic services.

beyond the scope of this rulemaking, Nortel urges the Commission to begin to consider allocating additional spectrum dedicated to fixed wireless services. The needs for these services cannot adequately be fulfilled simply by allowing CMRS providers to offer fixed wireless local loop services.

CMRS systems are optimized to serve mobile, rather than fixed customers. As a result, the performance and capacity of CMRS systems are likely to be inadequate to meet consumer expectations and need for wireline-equivalent service. A wireless system designed to serve fixed customers would have different characteristics than a wireless system designed to serve mobile customers. For example, CMRS systems incorporate significant "overhead" to accommodate roaming and authentication. For fixed services, it would not be necessary to provide these types of functions.

Also, CMRS systems typically have different limits of performance that are important to users (modem data rates, voice quality, blocking grade of service, bit error rates and digital data rates) than are available from wireline networks (or would be available from a fixed wireless access system designed as a true alternative to the wireline network). As a result of these differences, CMRS-provided fixed local loop services are

For example, mobile cellular systems typically operate with a blocking grade of service of 5-20%, whereas wireline service is designed for a blocking grade of service of better than 0.1%. Similarly, mobile cellular systems offer digital data rates of 9.6, 4.8 or 2.4 kbps, while users obtain digital data rates up to 64, 128 or 384 kbps from wireline service. Indeed, a suitable fixed wireless access service should (and could) provide ISDN BRA (2B + D) data capacity.

1unlikely to serve as wireline-equivalent connections to the network, and thus will be regarded as only a partially effective alternative in the "access to the information superhighway" marketplace.

For the reasons set forth above, Nortel urges the Commission to allow CMRS providers to maximize the value and use of their spectrum by providing fixed services. By enhancing competition and supporting the deployment of service in unserved and underserved areas, such a policy would well serve the public interest. To realize the full potential of wireless networks, however, the Commission should also begin to consider allocating additional spectrum dedicated to fixed wireless access services. Such an additional allocation will allow the development of even greater competition with wireline networks and the deployment of a truly enhanced wireless telecommunications infrastructure.

Respectfully Submitted,

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